Physical Capacities and Job Placement. By Bert Hanman. 1951. Stockholm: Nordisk Rotogravyr. Pp. 167. Price 22 Swedish crowns.

This book, written by an industrial psychologist, summarizes the theory and practice of job placement in the United States of America and in nine European countries. The author's original idea was to assemble material on the placement of those workers commonly referred to as disabled workers, but this was changed to include all workers on the argument that "not more than one per cent. of all workers is physically fit for all work". In Hanman's view the great mass of the working population of the world is physically limited to some degree. The principles of placement outlined therefore apply to all workers alike.

The book is written for the most part in clear, concise, American language. The author's survey of present placement practices is informative and interesting. In discussing the problems of physical fitness in relation to work, however, Hanman is not on such familiar ground. But his arguments are stimulating. There is a prevailing view in the world that the disabled are different from other people, and that society is thus divided into superior and inferior beings. Disability so defined is that which is measurable from a medical point of view. If a person has detectable physical defects he is said to be physically impaired. If he has no defects he is thought to be physically fit. The truth really is that even so-called fit men are more often than not physically handicapped, and in both groups many individuals are not occupationally handicapped in the slightest degree. Their performance on the job provides adequate proof of this assumption.

Legislation requiring employers to "hire" disabled persons is condemned by Hanman. Our Disabled Persons (Employment) Act of 1944 comes in therefore for some lively comment. Legislation certifies the inferiority of disabled workers and they are thus branded sociologically. They may wear a distinguishing badge and from then on wear a black halo. This, of course, is not in accordance with the facts in Great Britain. Here the registration of disability is voluntary. There is no sociological branding even where badges are worn. The Disabled Persons Act is based on a desire to help a disabled man in practical ways rather than to give him tangible charity by way of money benefits. The Act is now an accepted part of our social system, it is non-political, and has placed Great Britain well in the lead in the matters of industrial rehabilitation and resettlement.

Hanman critically and skilfully examines two main methods of placement, the "disability" method and the "rating" method. The "disability" method classifies disabled people into convenient groups such as the one-armed or the one-legged. There is corresponding job classification after examination or analysis of the jobs themselves. The goal is the construction of a list showing the various disabilities that each job will tolerate. In theory this is simple but, in the author's view, fundamentally unsound. It disregards the extensive variation to be found in the physical and environmental demands of the same job being performed in different

situations. It assumes that the physical capacities in any given group are similar. Hanman says: "This is an amazing error for medical men, since the individual nature of the ill and injured is a first principle in medicine". Finally this method is wrongly based on disability rather than on ability to do a job.

The "rating" method is based similarly on job and worker analysis, with the difference that for both purposes rating scales are applied, e.g. hard, moderate, light, very light; a, b, c, d; yes, no; 1, 2, 3, 4. In Hanman's view these terms are too general to be truly objective. There may be significant differences in the assessments of job analysts or doctors, and the results of assessments may hinder placement rather than assist it. The Pulheims system comes under this heading.

The author's main reason for writing his book is to describe his own solution to this problem through a new technique in job analysis. He has introduced what he calls a "specific" method for placement on physical grounds. Here the general terms used in rating scales are abandoned. A statement of facts is adopted and no attempt made therefore to rate facts according to a scale. By an ingenious method of using the hour as the standard unit it is possible, in Hanman's view, "to present the facts with a remarkable degree of accuracy". For example, from a study of the job demands analysis sheet the physician can immediately know that (in the analyst's opinion) his patient working on a given job would have to lift between 26 and 50 lb. for one hour out of eight worked; and that he would have to walk for three hours, and sit for one hour out of the eight-hour day. He then assesses his patient in terms of how many hours out of eight he can lift different weights, and how many hours out of eight would his physical condition allow him to walk without detriment to his health. Mechanical matching of man to job over a wide range of factors can then take place.

Hanman's arguments are based on extensive personal experience in the field of job analysis. He wisely states that his physical demands job analysis scheme is only one part of placement, and this immediately precludes considerable criticism. His next step surely must be to validate any claim that his methods should be generally accepted as an important part of placement. This can be done only by extensive investigation in collaboration with the medical profession.

DONALD STEWART

First Aid—Medical and Surgical. By Cole and Puestow and 19 other Authors. 1951. U.S.A.: Appleton-Century Croft; 4th ed. Pp. 432. Price \$4.

This book, largely a product of the Illinois College of Medicine, is described as being for the use of doctors, medical students, industrial surgeons, medical personnel of the Armed Forces, nurses, and first-aid attendants.

Whilst it is an easy book to read, it goes far beyond first aid as we understand it in England, and not only describes the work of the hospital casualty department, but even follows the patient into the operating theatre.

The book is written in clear and simple language, and is arranged in a familiar pattern. The first few chapters describe the functions and limitations of first aid. The general principles of the subject are enum-

erated, and a list is given of the material required. There are some surprising inclusions in this list, e.g. iodine, antitetanic serum, procaine, various surgical instruments, sulphadiazine and penicillin, to mention but a few. The chapters on anatomy, physiology, and bandaging are adequate and well illustrated.

In the treatment of wounds the use of sterile dressings is recommended, but if these are not available freshly ironed handkerchiefs or towels are suggested, an ingenious method of obtaining near sterility. Much mention is made of sulpha powders in this chapter, though later, in the text, it is recommended that they be given by mouth rather than dusted into the wound. The newer antibiotics are listed, including aureomycin and terramycin; the injection of 500,000 unit doses of penicillin are described as life-saving even in the first aid stage. Debridement of wounds is very inadequately described. Constrictive bandages are prescribed in the treatment of crush injuries of limbs, but little is made of the use of alkalis by mouth.

The chapter on the control of haemorrhage is clear and concise, and although it contains nothing new, it is one which could well be read by many first-aid attendants with advantage.

Fractures are dealt with in a workmanlike manner, and it is gratifying to see that the authors are not recommending the abandonment of splints in upper limb fractures. The principle of extension is well

recognized, and the Murray-Jones splint for the arm and the Thomas splint for the leg are both described.

The chapter on gas and bomb casualties includes a chart giving a complete list of gases, their effects and treatment. This list could have been considerably simplified since many of these gases are now of academic interest only, and their inclusion only serves to confuse the student.

The second half of the book deals with emergencies, region by region, and each chapter includes a short note on the anatomy and physiology of the system involved. These are all quite straightforward.

Included in the closing chapters are medical emergencies, poisoning, a comparison of civilian and military casualties, a chapter on feet, and the last chapter of all, "First Aid in Industry". This last chapter is more concerned with the treatment which might be given in the medical department in a works rather than with first aid. It contains a summary of the conditions likely to be met with in industry, but does not make a serious attempt to describe treatment.

As occurs in books which try to encompass too wide a field for a variety of different readers, there is much which is unnecessary and likely to confuse the first-aid attendant who has both a limited knowledge and field. On the other hand, the information is inadequate for the surgeon or industrial medical officer.

R. A. TREVETHICK

THE OCTOBER (1951) ISSUE

The October (1951) issue contains the following papers :—

The Work of the International Labour Organization in Occupational Health. By A. Grut.

The World Health Organization and Occupational Health. By Sven Forssman.

The Bearing of Experimental Psychology upon Human Skilled Performance. By Sir Frederic Bartlett.

The Effects of BAL on the Metabolism of Lead and on the Symptomatology in Lead Intoxication. By E. C. Vigliani and N. Zurlo.

Some Observations on the Toxic Properties of 3 : 5-Dinitro-Ortho-Cresol. By V. H. Parker, J. M. Barnes and F. A. Denz.

Valeur de la Tomographie Pulmonaire dans l'Expertise de la Silicose. By L. Roche.

"Entente Radiologique." A Step Towards International Agreement on the Classification of Radiographs in Pneumoconiosis. By A. L. Cochrane, I. Davies, and C. M. Fletcher.

Pneumoconiosis in Boiler Scalers. By H. E. Harding and A. P. Massie.

The Hazards of Rope Making. By James A. Smiley.

An Appliance for the Prevention of Mercury Poisoning. By Franz Stocker.

Contribution à l'Etude de la Toxicologie du Trichloréthylène. By René Fabre and René Truhaut.

The Toxicity of Methylal. By Frank L. Weaver, Jr., Alan R. Hough, Benjamin Highman, and Lawrence T. Fairhall.

The Effect of Benzene and of Carbon Tetrachloride on the Concentration of Certain Vitamins, Fat, and Nitrogen in the Liver of the Rat. By Maurice E. Shils, Martin Sass, Margaret Wolke, Grace Marks, Leonard J. Goldwater, and Aaron Berg.

Plastic Splints and Appliances in Industrial Orthopaedics. By John T. Scales.

An Environmental Study of the Chromate Industry. By Monamy Buckell and D. G. Harvey.

Carcinoma of the Lung in Chromate Workers. By P. Lesley Bidstrup.

A number of copies are still available and may be obtained from the Publishing Manager, British Medical Association, Tavistock Square, W.C.1, price 7s. 6d.